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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,752	07/23/2001	Eiichi Onaka	01438/LH	3206

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EXAMINER

NGO, HUYEN LE

ART UNIT PAPER NUMBER

2871

DATE MAILED: 08/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,752

Applicant(s)

ONAKA ET AL.

Examiner

Julie-Huyen L. Ngo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 7,8 and 10-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

Applicant's election without traverse of Species A (Fig. 1, claims 1-6 and 9) in Paper No. 5 is acknowledged.

Accordingly, claims 7, 8 and 10-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

DETAILED ACTION

Claim Objections

Claims 1-6 and 9 are objected to because of the following subject matters:

In lines 14-16 of claim 1, the recitation calling for "a plurality of leading wires which extend generally in parallel to the first wires and which are respectively connected to corresponding one of the second wires" is objected to because how can a plurality of leading wires be connected to corresponding one of the second wires?

A similar problem as set forth above in claim 1 exists in 5-7 of claim 9 regarding "a plurality of leading lines connected to corresponding one of the scanning signal lines".

Claims not specifically discussed above are objected as bearing the defect(s) of the claim(s) from which they depend.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakahara et al. (US6473147B1).

Nakahara et al. disclose (Figs. 1-4) a liquid crystal display device comprising:
(claim 1)

- a first / opposing substrate 2b;
- a second / active substrate 2a having a face opposing to the first substrate;
- a frame-shaped sealing member 3 which bonds the first and second substrates to each other;
- a liquid crystal 4 which is sealed in a space defined by the first and second substrates and the sealing member; and
- a plurality of first wires 7a / data signal lines,
- a plurality of second wires / scanning signal lines 7b formed in a direction perpendicular to the first wires,

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- a plurality of leading wires /lines which extend generally in parallel to the first wires 7a and which are respectively connected to corresponding one of the second wires / scanning signal lines 7b,

wherein

- the sealing member 3 has a first side portion extending generally in parallel to the first wires
- the plurality of leading wires/ leading lines extend along the first side portion of the sealing member, and partial lines of the leading lines are formed on an area overlapping on the first side portion of the sealing member

(Claim 2)

- the second substrate 2a has one side portion which is not opposed to the first substrate 2b and an integrated circuit connected to the plurality of first wires and the plurality of leading wires is on the one side portion

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara et al. (US6473147B1) as applied above to claims 1-2, and further in view of YAMADA (JP407104281A).

Nakahara et al. disclose (Figs. 1-4) a liquid crystal display device comprising all the limitations recited in claims 3, 4 and 9 as set forth in claims 1 and 2 above including:

- the sealing member 3 has a first side portion which is generally perpendicular to the scanning signal lines (claim 9)

However, Nakahara et al. fail to disclose a frame-shaped light shielding film for defining a display area on the first/opposing substrate.

YAMADA teaches forming a frame-shaped light shielding film 102 for defining a display area on the first/opposing substrate, wherein the light shielding film 102 is formed so as not to overlap on the first side portion of the sealing member 406, wherein the light shielding film is formed at a position spaced from the first side portion of the sealing member by a distance of $5\mu\text{m}$, which is less than 0.2 mm ($=200\mu\text{m}$) for providing high display quality.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display device as Nakahara et al. disclosed with a frame-shaped light shielding film for defining a display area on the first / opposing substrate, wherein said light shielding film is formed so as not to overlap on the first side portion of the sealing member 3, and said light shielding film is formed at a position spaced from the first side portion of the sealing member by a distance of $5\mu\text{m}$, which is less than 0.2 mm ($=200\mu\text{m}$) for providing high display quality, as taught by Yamada.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara et al. (US6473147B1) as applied above to claim 1, and further in view of Colgan et al. (US5831710A).

Colgan et al. teach (Figs 2-6) forming a wall/sealing member diffusion-preventing wall 25 outside the adhesive/sealing member 52 for preventing diffusion from the sealing member 52 toward the pixel locations beyond the wall and thereby to reduce the unused space allotted to avoid contamination in the active area. Colgan et al. further teach (Fig. 4) disposing spacers 24 between the first substrate and the second substrate for controlling the gap between the substrates, wherein the spacers are formed of the-same material as the sealing member diffusion preventing wall 25 for reducing manufacturing time and cost.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Nakahara liquid crystal display device for having a sealing member diffusion preventing wall 25 provided outside the sealing member 3 for preventing diffusion from the sealing member 3 toward the pixel locations beyond the wall and thereby to reduce the unused space allotted to avoid contamination in the active area; and for having a spacer disposed between the first substrate and the second substrate for controlling the gap between the substrates, and having the spacer formed of the-same material as the sealing member diffusion preventing wall for reducing manufacturing time and cost, as taught by Colgan et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Kimura (US5777713) discloses a liquid crystal display device with sealing member diffusion preventing wall 25 provided outside the sealing member.

Kabushiki et al. (US6104462A) disclose a liquid crystal displaying apparatus with two glass substrates having electrodes are sealed with an adhesive agent and a sealing agent overlapping with shielding layer 2.

Ohgawara et al. (US6407783B1) disclose a liquid crystal display device has a light-shielding layer 21 at a portion excluding a display pattern on a transparent substrate 12.


Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Julie-Huyen L. Ngo whose telephone number is (703) 305-3508. The Examiner can normally be reached on T-Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Robert H. Kim can be reached at (703) 305-3492.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

August 11, 2003


Julie-Huyen L. Ngo
Patent Examiner
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